

Claims:

1. A method for addressing an AV fragment of an AV resource over a network, to an arbitrary level of resolution, said AV resource being a member of a class of AV resources, wherein a logical model is associated with members of the class of AV resources; said method comprising steps of:

determining a URI network address for the AV resource;

applying the logical model to the AV resource to form a hierarchical representation of the AV resource including a representation of the AV fragment;

- 10 determining a fragment identifier for the fragment dependent upon the representation of the AV fragment; and

combining the URI network address and the fragment identifier to form a URI reference, being an address for the AV fragment.

- 15 2. A method according to claim 1, wherein the determining of the fragment identifier includes a sub-step of:

identifying (i) a type of the AV resource, and (ii) the logical model, dependent upon one of (a) the fragment identifier, (b) the URI, and (iii) the fragment identifier and the URI.

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3. A method according to claim 1, wherein the determining of the fragment identifier comprises a sub-step of:

identifying (i) a type of the AV resource, and (ii) the logical model, dependent upon the root of the fragment identifier.

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4. A method according to either one of claims 2 and 3, wherein said identifying step comprises a sub-step of:

applying an XPath based addressing scheme to the fragment identifier, said scheme including at least one of a time axis, a time function, a region axis, and a region function, for addressing temporal and spatial fragments of the AV resource.

5. A method according to either one of claims 2 and 3, wherein the type of the AV resource includes at least one of (i) digital video, (ii) analog video, (iii) compact disc audio, (iv) analog audio, and (v) digital video disc.

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6. A method for locating an AV fragment of an AV resource over a network, to an arbitrary level of resolution, said AV resource being a member of a class of AV resources, wherein a logical model is associated with members of the class of AV resources; said method comprising steps of:

15 using a URI network address portion of a URI reference to locate the AV resource;

identifying (i) a type of the AV resource, and (ii) the logical model, dependent upon one of (a) the fragment identifier, (b) the URI, and (c) the fragment identifier and the URI ; and

20 applying an XPath based addressing scheme to the fragment identifier, said scheme including at least one of a time axis, a time function, a region axis, and a region function, for addressing temporal and spatial fragments of the AV resource, thereby locating the AV fragment.

25 7. A method according to claim 6, wherein the identifying step comprises:

identifying (i) the type of the AV resource, and (ii) the logical model, dependent upon the root of the fragment identifier.

8. A method according to claim 6, wherein the type of the AV resource includes at least one of (i) digital video, (ii) analog video, (iii) compact disc audio, (iv) analog audio, and (v) digital video disc.

9. A method for addressing an AV fragment of an AV resource over a network, to an arbitrary level of resolution, said AV resource being a member of a class of AV resources, wherein a logical model is associated with members of the class of AV resources; said method comprising steps of:

determining a URI network address for the AV resource;

applying the logical model to the AV resource to form a hierarchical representation of the AV resource including a representation of the AV fragment;

15 determining a fragment identifier for the fragment dependent upon the representation of the AV fragment, including a sub-step of identifying (i) a type of the AV resource, and (ii) the logical model, dependent upon one of (a) the fragment identifier, (b) the URI, and (iii) the fragment identifier and the URI; wherein said identifying step comprises a sub-step of applying an XPath based addressing scheme to the fragment identifier, said scheme including at least one of a time axis, a time function, a region axis, and a region function, for addressing temporal and spatial fragments of the AV resource; and

combining the URI network address and the fragment identifier to form a URI reference, being an address for the AV fragment.

10. An apparatus for addressing an AV fragment of an AV resource over a network, to an arbitrary level of resolution, said AV resource being a member of a class of AV resources, wherein a logical model is associated with members of the class of AV resources; said apparatus comprising:

5 first determining means for determining a URI network address for the AV resource;

applying means for applying the logical model to the AV resource to form a hierarchical representation of the AV resource including a representation of the AV fragment;

10 second determining means for determining a fragment identifier for the AV fragment dependent upon the representation of the AV fragment; and

combining means for combining the URI network address and the fragment identifier to form a URI reference, being an address for the AV fragment.

15 11. An apparatus according to claim 10, wherein the second determining means includes:

identifying means for identifying (i) a type of the AV resource, and (ii) the logical model, dependent upon one of (a) the fragment identifier, (b) the URI, and (iii) the fragment identifier and the URI.

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12. An apparatus according to claim 10, wherein the second determining means includes:

identifying means for identifying (i) a type of the AV resource, and (ii) the logical model, dependent upon the root of the fragment identifier.

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13. An apparatus according to either one of claims 11 and 12, wherein said identifying means includes:

applying means for applying an XPath based addressing scheme to the fragment identifier, said scheme including at least one of a time axis, a time function, a region axis,
5 and a region function, for addressing temporal and spatial fragments of the AV resource.

14. An apparatus according to either one of claims 11 and 12, wherein the type of the AV resource comprises at least one of (i) digital video, (ii) analog video, (iii) compact disc audio, (iv) analog audio, and (v) digital video disc.

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15. An apparatus for addressing an AV fragment of an AV resource over a network, to an arbitrary level of resolution, said AV resource being a member of a class of AV resources, wherein a logical model is associated with members of the class of AV resources; said apparatus comprising:

15 first determining means for determining a URI network address for the AV resource;

first applying means for applying the logical model to the AV resource to form a hierarchical representation of the AV resource including a representation of the AV fragment;

20 second determining means for determining a fragment identifier for the fragment dependent upon the representation of the AV fragment, including identifying means for identifying (i) a type of the AV resource, and (ii) the logical model, dependent upon one of (a) the fragment identifier, (b) the URI, and (iii) the fragment identifier and the URI; wherein said identifying means comprises second applying means for applying an XPath
25 based addressing scheme to the fragment identifier, said scheme including at least one of

a time axis, a time function, a region axis, and a region function, for addressing temporal and spatial fragments of the AV resource; and

combining means for combining the URI network address and the fragment identifier to form a URI reference, being an address for the AV fragment.

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16. An apparatus for locating an AV fragment of an AV resource over a network, to an arbitrary level of resolution, said AV resource being a member of a class of AV resources, wherein a logical model is associated with members of the class of AV resources; said apparatus comprising:

10 utilisation means for using a URI network address portion of a URI reference to locate the AV resource;

identifying means for identifying (i) a type of the AV resource, and (ii) the logical model, dependent upon one of (a) the fragment identifier, (b) the URI, and (c) the fragment identifier and the URI ; and

15 applying means for applying an XPath based addressing scheme to the fragment identifier, said scheme including at least one of a time axis, a time function, a region axis, and a region function, for addressing temporal and spatial fragments of the AV resource, thereby locating the AV fragment.

20 17. A computer readable memory medium for storing a program for apparatus for addressing an AV fragment of an AV resource over a network to an arbitrary level of resolution, said AV resource being a member of a class of AV resources, wherein a logical model is associated with members of the class of AV resources; said program comprising:

code for a first determining step for determining a URI network address for the AV resource;

code for an applying step for applying the logical model to the AV resource to form a hierarchical representation of the AV resource including a representation of the AV fragment;

code for a second determining step for determining a fragment identifier for the AV fragment dependent upon the representation of the AV fragment; and

code for a combining step for combining the URI network address and the fragment identifier to form a URI reference.

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18. A computer readable memory medium according to claim 17, wherein the code for the second determining step includes:

code for an identifying step for identifying (i) a type of the AV resource, and (ii) the logical model, dependent upon one of (a) the fragment identifier, (b) the URI, and (iii) the fragment identifier and the URI.

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19. A computer readable memory medium according to claim 17, wherein the code for the second determining step includes:

code for an identifying step for identifying (i) a type of the AV resource, and (ii) the logical model, dependent upon the root of the fragment identifier,.

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20. A computer readable memory medium according to either of claims 18 and 19, wherein said code for the identifying step includes:

code for an applying step for applying an XPath based addressing scheme to the fragment identifier, said scheme including at least one of a time axis, a time function, a

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region axis, and a region function, for addressing temporal and spatial fragments of the AV resource.

21. A computer readable memory medium according to 18 and 19, wherein the type
5 of the resource comprises at least one of (i) digital video, (ii) analog video, (iii) compact disc audio, (iv) analog audio, and (v) digital video disc.

22. A computer readable memory medium for storing a program for apparatus for
addressing an AV fragment of an AV resource over a network, to an arbitrary level of
10 resolution, said AV resource being a member of a class of AV resources, wherein a logical model is associated with members of the class of AV resources; said program comprising:

code for a first determining step for determining a URI network address for the
AV resource;

15 code for a first applying step for applying the logical model to the AV resource to form a hierarchical representation of the AV resource including a representation of the AV fragment;

code for a second determining step for determining a fragment identifier for the
fragment dependent upon the representation of the AV fragment, including code for an
20 identifying step for identifying (i) a type of the AV resource, and (ii) the logical model, dependent upon one of (a) the fragment identifier, (b) the URI, and (iii) the fragment identifier and the URI; wherein said code for the identifying step comprises code for a second applying step for applying an XPath based addressing scheme to the fragment identifier, said scheme including at least one of a time axis, a time function, a region axis,

and a region function, for addressing temporal and spatial fragments of the AV resource;
and

code for a combining step for combining the URI network address and the
fragment identifier to form a URI reference, being an address for the AV fragment.

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23. A computer readable memory medium for storing a program for apparatus for
locating an AV fragment of an AV resource over a network, to an arbitrary level of
resolution, said AV resource being a member of a class of AV resources, wherein a
logical model is associated with members of the class of AV resources; said program
10 comprising:

code for a utilisation step for using a URI network address portion of a URI
reference to locate the AV resource;

code for an identifying step for identifying (i) a type of the AV resource, and (ii)
the logical model, dependent upon one of (a) the fragment identifier, (b) the URI, and (c)
15 the fragment identifier and the URI ; and

code for an applying step for applying an XPath based addressing scheme to the
fragment identifier, said scheme including at least one of a time axis, a time function, a
region axis, and a region function, for addressing temporal and spatial fragments of the
AV resource, thereby locating the AV fragment.

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